KNOWLEDGE-BASED FLEXIBLE NATURAL SPEECH DIALOGUE SYSTEM

ABSTRACT OF THE DISCLOSURE

A knowledge-based natural speech dialogue system includes: (i) a knowledge support system, (ii) a flexible dialogue control system, and (iii) a context information system. Flexibilities of the conversation structure, inherent in mixed-initiative mode for dealing with complex user request, are managed because the knowledge structures involved are represented by additional, powerful knowledge representation tools, and because the context information is retained by more specific data structures, which covers larger temporal scopes by the logic of the conversation, rather than by a fixed locality of the grammar flow. This system provides a simple yet reliable method to compensate for these factors to enable more powerful conversation engines with mixed-initiative capabilities.